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ABSTRACT

The Learning Resource Centres (LRCs) of Ontario (Canada) are in the midst of a technological metamorphosis unprecedented in their 25-year history. The LRCs are becoming centers for independent, self-paced, experiential learning, places in which students actively create, evaluate, experience, and interpret a world of information through technology. LRCs in Ontario are being influenced by national, provincial, and local trends. As they adopt a broader vision of the future, they plan for important roles in: (1) information literacy; (2) alternative learning; (3) software; (4) production; (5) instructional telecommunications; (6) distance education; (7) curriculum design and delivery; and (8) classroom design. Few of the Ontario LRCs are structurally, financially, or technologically prepared for their new and expanded roles. A transformed role for the LRCs implies significant change in alternative learning, information literacy, leadership, access, standards, staff training, and funding. (Contains 44 references.) (SLD)

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Position Paper on

LEARNING RESOURCE CENTRES AND THEIR FUTURE

in the Ontario Community College system:

A TECHNOLOGY PERSPECTIVE

BEST COPY AVAILABLE

The Report of the
LRC Directors' Sub-committee
Technology Task Force

To
The Committee on Learning Resources (CLR)
October 1993

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POSITION PAPER ON LEARNING RESOURCE CENTRES

AND THEIR FUTURE IN

THE ONTARIO COMMUNITY COLLEGE SYSTEM: A TECHNOLOGY PERSPECTIVE

THE REPORT OF THE LRC DIRECTORS' SUB-COMMITTEE

TECHNOLOGY TASK FORCE

TO THE COMMITTEE ON LEARNING RESOURCES (CLR)

OCTOBER 1993

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CLR Survey Results of CAAT Colleges LRCs 1992/93	Conducted & Written by	Michele Beaudoin Director, Learning Resource Centres Georgian College AND Jean Cornett Library Supervisor Georgian College
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Response to CSAC Discussion May 1992	Written by	LRC Directors' Sub committee of CLR

Excerpts from reports on Learning Centres for Maricopa Community Colleges Brookhaven Community College El Centro College, Collin County Community College, Richland Brookdale Community College Mountainview College, Santa Fe Community College and Seneca College	Supplied by Tanis Fink Director, Learning Resource Centre Seneca College

The LRC Directors' Sub-committee reports to the Committee on Learning Resources and is representative of all LRCs in the Ontario CAAT System.

Chair of the LRC Directors' Sub-Committee: 1993/94 Annetta Protain, Centennial College
Chair of the Committee on Learning Resources: 1993/94 Sandra Black, Mohawk College

POSITION PAPER ON LEARNING RESOURCE CENTRES AND THEIR FUTURE IN THE COMMUNITY COLLEGE SYSTEM -- A TECHNOLOGY PERSPECTIVE

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POSITION PAPER ON LEARNING RESOURCE CENTRES AND THEIR FUTURE IN THE COMMUNITY COLLEGE SYSTEM -- A TECHNOLOGY PERSPECTIVE

EXECUTIVE SUMMARY

Technology is rapidly and almost invisibly reinventing the Learning Resource Centre. Ontario's LRCs are in the midst of a technological metamorphosis unprecedented in their 25-year history. Technology entered as a natural evolution for information storage and retrieval, and piece by piece, is now transforming the LRC into a centre for independent, self-paced, experiential learning. It is no longer passive in its role; it is no longer a simple collection of physical objects; it is, rather, a centre where students actively create, evaluate, experience and interpret a world of information through technology.

LRCs around the world are supporting new educational directions by making multimedia CD-ROM resources standard in all schools, by providing access to digitized resources from museums and art galleries, by providing faculty support to author multi-media assignments, and by providing technical expertise to global telecommunications and electronic classrooms. Community colleges in the United States have developed Alternative Learning Centres as part of the LRC, or have centralized computer-based learning centres for remedial and advanced education within or close to the LRC. The LRC has become a hub of independent, self-directed learning.

LRCs in Ontario are being influenced by global directions of LRCs, Canadian Library Association standards, Ontario Public Library Association goals, and the Provincial Restructuring process. Given the global directions of LRCs as centres for independent, self-paced, computer-based learning; educational technology directions to place computers in the hands of children and to use telecommunications as the backbone of global learning; community initiative to provide every Ontarian with access to the information resources within the province; and the College restructuring exploration of alternative delivery modes, distance education and a newly structured academic year, LRCs must transform to meet new learning support needs.

LRCs in Ontario colleges are adopting a broader vision of their future and do have a significant role in several areas: information literacy; alternative learning; software; production; instructional telecommunications; distance education; curriculum design and delivery; and classroom design. Few LRCs in Ontario are structurally, financially, or technologically prepared to meet the demands of a new or expanded roles in these areas. A transformed role for LRCs implies significant change in the areas of alternative learning, information literacy, leadership, access, standards, staff training and funding.

Alternative Learning

It is recommended that:

1. LRCs be considered in the provincial restructuring process as a cost effective option for providing location, facilities, and staff expertise devoted to self-paced, self-directed learning and alternative delivery of education.

2. LRCs develop more formal partnerships with faculty in the creation and use of multi-media learning packages for self-directed learning and classroom teaching. The role of media and library services staff should be exploited fully in this process.

Information Literacy

It is recommended that:

3. LRCs work with CSAC representatives locally and provincially to ensure that information literacy skills are incorporated into curricula as generic skills.

4. LRC staff participate in the development and delivery of information literacy components of appropriate college curricula. Such components may include research skills, information evaluation and an understanding of the creation and dissemination of information.

5. LRCs provide leadership to the college system to ensure that staff complements support new information literacy initiatives.

Leadership

It is recommended that:

6. CLR, Bibliocentre, and the Users Advisory Committee (of the Bibliocentre) work as a team to ensure that a planned approach to technology development for LRCs occurs system wide.

7. LRCs establish formal connections with the Educational Technology Coordinating Committee and Computer Services Departments provincially in order to provide collective leadership to the college system in technology development.

8. LRCs work closely with local representatives in educational technology, learning centres, and computer services, to ensure effective technical support for instructional delivery (e.g. electronic classrooms, distance education, computer-based delivery).

9. LRC staff develop partnerships with faculty in the design and development of curriculum which uses technology more effectively for research and course delivery.

10. LRCs develop a coordinated approach to the creation, selection, purchase and organization of educational software and courseware and access to it.

Equity of Access

It is recommended that:

11. To support today's service needs, all LRCs have a minimum technological requirement of:
    - Integrated library systems to include automated circulation and online public access catalogues.
    - CD-ROM work stations with printout capability for periodical subject searching.
    - Internet access in the LRC

12. LRCs provide access to information and learning in a variety of formats to suit different learning styles. It is vital that this be done effectively through wise purchasing and selective creation of appropriate media. Media services require review and enhancement at many colleges to support this direction.

Technology Standards and Compatibility

It is recommended that:

13. LRCs work collectively to ensure local purchase decisions for electronic information resources are based on compatibility with existing technological standards (e.g. Z39.50 search protocol).

Staff Training

It is recommended that:

14. LRC professional development and staff training be directed in these areas:
    - Internet as a resource for teachers and students
    - Selection and use of Educational Software and Courseware
    - Multimedia authoring software and the creation of instructional resources
    - Technical support for electronic classrooms
    - Systems expertise as it relates to library functions and services

15. LRCs collectively and individually pursue funding sources to ensure opportunities for staff development in the identified areas for training.

16. LRCs develop regional pools of expertise which can provide immediate response to training needs of all LRC staff to meet front line training requirements.

17. LRCs seek opportunities for secondment of LRC staff to provide expertise locally and as regional experts (e.g. multi-media courseware development, information literacy course development).

Funding

It is recommended that:

18. Funding be provided locally to ensure all LRCs in Ontario meet the minimum technological requirements described in these recommendations.

19. Provincial and local funds be directed to LRCs to enable the Ontario Community College System to embrace the expanded role of the LRC as a hub of independent, self-directed learning, and as a centre which supports and enhances educational delivery in a technological environment.

CONCLUSION

LRCs can provide leadership to ensure that the Ontario College System does not develop colleges which are technologically elite while others struggle to provide basic services by establishing partnerships with provincial Computer Services representatives, the Educational Technology Coordinating Committee, Bibliocentre, local departments and teachers.

To realize the vision of LRCs as centres for independent, self-directed learning which support teaching and learning in a technologically enhanced education environment, the Ontario Community College System must direct financial and technological resources to the growth and development of LRCs. Without such support for LRCs in Ontario, the erosion of services and the depletion of resources will continue at a time when they are most critical to the success of students who will move into a technologically advanced and information dependent work force.

POSITION PAPER ON LEARNING RESOURCE CENTRES AND THEIR FUTURE IN THE COMMUNITY COLLEGE SYSTEM -- A TECHNOLOGY PERSPECTIVE

Technology is rapidly and almost invisibly reinventing the Learning Resource Centre. Ontario's LRCs are in the midst of a technological metamorphosis unprecedented in their 25-year history. Technology entered as a natural evolution for information storage and retrieval, and piece by piece, is now transforming the LRC into a centre for independent, self-paced, experiential learning. It is no longer passive in its role, it is no longer a simple collection of physical objects; it is, rather, a centre where students actively create, evaluate, experience and interpret a world of information through technology.

I. A GLOBAL PERSPECTIVE ON LRCs

In order to understand how LRCs fit into the Ontario College System now and in future, it is essential to place them in a more global context, to look at educational technology in classrooms around the world and to be aware of external influences on LRC direction.

Technology and Learning

By looking at the themes which emerge from Rethinking the Roles of Technology in Education, (Proceedings from the Tenth International Conference on Technology in Education) it is clear how technology is enhancing education at all levels. Student-directed, self-paced, problem-centred projects are core to the curriculum in most computer-based education. Teachers use authoring software to create assignments, to teach a concept, and to assess teaching and learning; and students prepare assignments using multi-media technology.

The global classroom has become a reality using networks such as Internet to conduct global discussions on literature and science project results from Canada to Singapore or from Israel to Venezuela. The electronic classroom with two-way video/audio communication allows Distance Education to take place effectively from city to city with no extended travel for teachers or students.

LRCs around the world are supporting these activities by making multi-media CD-ROM resources standard in all schools, by providing access to digitized resources from museums and art galleries, by providing faculty support to author multi-media assignments, and by providing technical expertise to global telecommunications and electronic classrooms. LRCs encourage problem-centred assignments and teach students the "navigational" skills to master databases of information and the critical thinking skills to discriminate between relevant and irrelevant information. (Stanton, p.73)

LRCs and Independent Learning

Collin County Community College in McKinney Texas opened in 1985 with an LRC developed from experience and vision. Collin County has incorporated an Alternative Learning Centre and Remedial Learning Centres into its LRC concept. Here the LRC "functions as a key learning tool in the overall focus on learning how rather than what...". (Ducote, p. 64) In all LRC services "such as reference, alternative learning, and bibliographic instruction, the role of the LRC staff is to help students discover, evaluate, judge and solve problems." (Ducote, p. 66)

The Alternative Learning Centre is an interdisciplinary computer/media lab designed to "facilitate experiential learning and hands on practice through the use of educational technology." (Ducote, p. 67) Staff in the ALC provide technical support and instructional support to students and faculty who wish to use video tape, computers, etc. ALC staff also promote the effective use of telecommunications technology to make active learning experiences more accessible to all. In Collin county, the LRC is "the hub of experiential learning and teaching..." (Ducote, p.68) emphasised in this College.

Other colleges in the United States have taken a similar approach and are centralizing computer-based Learning Centres for remedial to advanced education within or close to the LRC. Maricopa Community Colleges in Phoenix, Arizona, consider the LRC relationship to these services essential: "This proximity [to the LRC] seems to be an essential component to the success of the Centre." (Maricopa Report p.4) Brookhaven College in Farmers' Branch Texas has located a Learning Support Centre inside the LRC as have Mountainview College in Texas and Sante Fe Community College in Florida.

Influences on LRC Technology Direction

The role of the LRC is influenced by global directions and leadership from visionary colleges, but there are also standards, local restructuring issues, and community or field influences which help to shape LRC technology directions. In 1992, the Canadian Association of College and University Libraries (CACUL) published standards for Canadian College Learning Resources Centres which consider automated reference service, bibliographic networks, acquisition of computer software and production of curriculum related instructional materials as primary services in any LRC. (CACUL Occasional Paper Series, No. 6, p. 21) As a collection standard, CACUL states: "Media collections, including those locally produced, play a vital role in the instructional program..." (CACUL Occasional Paper Series No. 6, p. 12). As primary services, these standards represent what should be basic to all LRCs now.

From the community perspective, the Ontario Public Library System developed a strategic plan in 1990, One Place to Look, which has as its first goal the development of an "integrated system of partnerships among all types of information providers." (One Place to Look, p. 14). Under this goal, the fourth objective is to "enhance the province-wide Public Library information network by developing, promoting, and expanding information partnerships beyond Public Libraries." (One Place to Look, p. 24). When partnerships are established locally, issues such as system compatibility and resources sharing arise which influence the LRC technology directions.

Restructuring at the provincial level brings with it several issues which relate to the LRC, particularly when one considers the LRC in its broadest context as Collin County Community College has done. Modular curriculum suggests the creation of multi-media learning packages and technical and instructional support for computer-based learning. The concept of self-directed learning and alternative delivery modes suggest a support system similar to the Alternative Learning Centre of Collin County. To have success, Distance Education requires the development of electronic classrooms, telecourses, and a range of multi-media and traditional resource materials. This suggests the need for technical support, in-house production and flexible collections of materials with mobility. The delivery of all LRC services is influenced by these changes and becomes particularly challenging when faced with potential changes to the structure of the academic year.

II. LRCs IN THE LOCAL CONTEXT

Structure and Relationships

In 1991/92 and 1992/93, Ontario CAAT LRCs responded to surveys on, 1) Technology and 2) Structure and Relationships With Other Departments or Related Services. Generally, LRCs are traditional in structure with fourteen colleges having traditional Library Services (reference, circulation, technical services and audio-visual software), and traditional Media Services (classroom support, equipment repair and maintenance, equipment circulation, and production of audio-visual aids), composing the LRC.

Variations do exist which suggest a move toward less traditional services and structures. Six colleges (Centennial, Seneca, Durham, Loyalist, George Brown, and Canadore) have aligned with Computer Assisted Instruction, CAI labs, or Testing Centres. In Seneca's report on the Learning Centre for the Centre of Educational Effectiveness, it is recommended that "Seneca.....create a learning resource centre which incorporates a writing and math centre along with an interactive computer-assisted instruction centre." (Seneca Report p.1) George Brown and Seneca have also established faculty work stations in the LRC.

Overall, LRCs have minimal to no formal relationships with other technology areas of the college such as CAI, Academic Computing, Instructional Design, Multi-media labs, Distance Education, and Computer Services. (LRC Survey, 1992/93) LRCs currently have little involvement with Program and Curriculum Development with the exception of Canadore College which has aligned this area with Media Services and many of the above services under Educational Resources.

Technology Survey

LRCs have developed library system automation in a piecemeal fashion depending on local funding and access to central support systems (i.e. Bibliocentre). In the 1991/92 CLR Library Automation Survey, 14 LRCs reported having automated circulation systems, and of these, not all have automated every campus. Fifteen LRCs reported having Online Public Access Catalogues (OPAC). Technology for these systems has been available in Ontario libraries for more than 15 years. LRCs use a mixture of software programs for general office functions, statistics, bibliographies and subject lists.

Online services and CD-ROM products are common to LRCs with most providing access to such databases as Canadian Business and Current Affairs, ERIC (Education Resources Information Centre), and Nursing and Allied Health -- all index tools for articles. Some have multi-media encyclopedias (e.g. Groliers). Computers for general student use are provided in LRCs but LRC staff provide little instruction, minor troubleshooting, basic support, and answer questions of a general nature.

III. LRC ROLE TRANSFORMED THROUGH TECHNOLOGY

LRCs in Ontario have not entirely embraced the Collin County Community College vision of LRCs as the "hub of experiential learning and teaching". In 1992, the Committee on Learning Resources (CLR) submitted a paper to the College Standards and Accreditation Committee hinting at an expanded role for LRCs. Recommendations in this report stated that "information literacy be acknowledged and defined as a generic skill and that this skill be delivered through the LRC". Related to Program Review, the CLR recommended that this process include a "review and assessment of the materials, facilities and services provided by the LRC in direct support of a program." (Response to CSAC Discussion Paper, p. 2)

Given the global directions of LRCs as centres for independent, self-paced, computer-based learning; educational technology directions to place computers in the hands of children and to use telecommunications as the backbone of global learning; community initiative to provide every Ontarian with access to the information resources within the province; and the College restructuring exploration of alternative delivery modes, distance education and a newly structured academic year, LRCs must transform to meet new learning support needs.

LRCs in Ontario colleges are adopting a broader vision of their future and do have a significant role in several areas: information literacy; alternative learning; software; production; instructional telecommunications; distance education; curriculum design and delivery; and classroom design. New and expanded roles for Ontario CAAT LRCs can be seen in all of these areas:

Information Literacy

- The LRC staff as instructors in information evaluation strategies assisting students in the use of electronic databases to teach them the ability to find, evaluate, and use information effectively. The educational goal is to enable students to apply a model of information gathering to a specific new situation, i.e. to become information literate.

Alternative Learning

- The LRC as the centre for alternative delivery of education.

- The LRC as an opportunity for self-paced, self-directed learning through multi-media based stand alone, and networked work stations which can be supported by LRC staff in collaboration with faculty.

Software

- The LRC staff as experts in the evaluation, creation, selection, acquisition, cataloguing, organization and circulation of educational software and courseware.

Production

- LRC staff to provide instruction, consultation and technical support to students and faculty for all types of production--multi-media, graphics, authoring, and audio-visual.

- LRC staff as collaborators in the creation of multi-media learning packages for self-paced learning and distance education.

Instructional Telecommunications

- LRC staff as "navigational" experts assisting students through the varied search protocols in electronic databases, instructing them in the database scope and content.

- The LRC as a centre for access to remote databases for student use.

- LRC staff as advisors in the appropriate use of telecommunications technology in the classroom.

- LRC staff in a technical support role for global networks.

Classroom Design

- LRC staff as experts in the design of classrooms to provide appropriate learning environments for all delivery modes.

- LRC staff as providers of technical support to all classrooms including electronic classrooms.

Curriculum Design and Delivery

- LRC as a partner with faculty in the development of resource- based, problem-centred assignments appropriate for research on electronic databases.

- LRC staff as instructional designers providing expertise in curriculum delivery modes, working in collaboration with faculty providing expertise in content and subject.

IV. ISSUES AND RECOMMENDATIONS

Few LRCs in Ontario are structurally, financially, or technologically prepared to meet the demands of the role described in this paper. Some are making the necessary connections with other departments to assume this expanded role, and some are adding technology in a piecemeal fashion. Questions as fundamental as "What is a learning resource?" may be asked as more and more information becomes available electronically. LRCs are moving through a significant paradigm change from a focus on a resource as an item (e.g. book, videotape), to a focus on information in all its forms.

Several issues arise from the technology perspective, as LRCs enter into this paradigm shift. The new or expanded role for LRCs implies significant change in the areas of alternative learning, information literacy, leadership, access, standards, staff training, and funding.

Alternative Learning

In most colleges in Ontario, resources are scattered and new technology development occurs in isolated pockets with limited coordination of effort. Most Ontario colleges have not organized to effectively deliver alternative or self-paced learning in the way that colleges in the United States and around the world have done. If Ontario colleges are going to respond to learning needs, a more cost effective use of existing resources and a coordinated approach to educational delivery and alternative learning has to occur.

It is recommended that:

1. LRCs be considered in the provincial restructuring process as a cost effective option for providing location, facilities, and staff expertise devoted to self-paced, self-directed learning and alternative delivery of education.

2. LRCs develop more formal partnerships with faculty in the creation and use of multi-media learning packages for self-directed learning and classroom teaching. The role of media and library services staff should be exploited fully in this process.

Information Literacy

As a generic skill, information literacy is critical to lifelong learning for students and is broader in scope and greater in depth than traditional library orientation or user education. Assisting students to become information literate is a challenge requiring continuous updating and upgrading for LRC staff and resources.
To remain relevant to student and faculty information literacy needs, currency of information and expertise in scope and availability of information is paramount in LRCs. Networks such as Internet present an overwhelming volume of information instantaneously. Given current funding and staff levels, LRCs will have difficulty meeting such high level demands for currency and providing expertise and training to students in technologies so vast in scope and so rapidly growing.

It is recommended that:

3. LRCs work with CSAC representatives locally and provincially to ensure

that information literacy skills are incorporated into curricula as generic skills.

4. LRC staff participate in the development and delivery of information literacy components of appropriate college curricula. Such components may include research skills, information evaluation and an understanding of the creation and dissemination of information.

5. LRCs provide leadership to the college system to ensure that staff complements support new information literary initiatives.

Leadership

The 1992/93 survey of CAAT LRCs and their relationship to other departments clearly indicates that colleges are moving in several directions with little leadership over the application or implementation of technology. Canadore College has developed the most centralized management of educational technology from the Media perspective. The Bibliocentre provides centralized system development (e.g. OCAAT System) to libraries but has had a minor role to date in telecommunications applications and has no responsibility for the equitable distribution of such technologies.

It is recommended that:

6. CLR, Bibliocentre, and the Users Advisory Committee (of the Bibliocentre) work as a team to ensure that a planned approach to technology development for LRCs occurs system wide.

7. LRCs establish formal connections with the Educational Technology Coordinating Committee and Computer Services Departments provincially in order to provide collective leadership to the college system in technology development.

8. LRCs work closely with local representatives in educational technology, learning centres, and computer services, to ensure effective technical support for instructional delivery (e.g. electronic classrooms, distance education, computer-based delivery).

9. LRC staff develop partnerships with faculty in the design and development of curriculum which uses technology more effectively for research and course delivery.

10. LRCs develop a coordinated approach to the creation, selection, purchase, and organization of educational software and courseware and access to it.

Equity of Access

Costs to provide new technology can be prohibitive causing "some colleges to become technologically elite, while others struggle to provide basic services." (Rusk, p. 77) Ontario colleges have these inequities today in Library and Media Services. Four colleges now have no media production for educational purposes and 5 colleges have not automated their circulation systems. Students and staff do not benefit equally from current technologies for information access and management.

It is recommended that:

11. To support today's service needs, all LRCs have a minimum technological requirement of:
    - Integrated library systems to include automated circulation and online public access catalogues.
    - CD-ROM work stations with printout capability for periodical subject searching.
    - Internet access in the LRC

12. LRCs provide access to information and learning in a variety of formats to suit different learning styles. It is vital that this be done effectively through wise purchasing and selective creation of appropriate media. Media services require review and enhancement at many colleges to support this direction.

Technology Standards and Compatibility

With electronic systems and resources, search protocols vary from system to system and from database to database. Entering onto the Internet system, students require assistance with complex user education and must learn unlimited "navigational" strategies. LRCs must be prepared to support systems development which allows "connectivity" to Internet, to local public Library networks, and to other academic environments in preparation for the multi-media work station environment of an Alternative Learning Centre.

It is recommended that:

13. LRCs work collectively to ensure local purchase decisions for electronic information resources are based on compatibility with existing technological standards (e.g. Z39.50 search protocol).

Staff Training

Changing delivery modes have vast implications for Media staff in terms of support functions for faculty and the need to create more in-house educational packages. The need is for more expertise and more output while budgets and staffing are decreasing. An overwhelming pressure is placed on LRC staff to gain expertise rapidly in educational software, telecommunications, international databases, multi-media, authoring software, electronic classrooms, etc.

It is recommended that:

14. LRC professional development and staff training be directed in these areas:
    - Internet as a resource for teachers and students
    - Selection and use of educational software and courseware
    - Multimedia authoring software and the creation of instructional resources
    - Technical support for electronic classrooms
    - Systems expertise as it relates to library functions and services

15. LRCs collectively and individually pursue funding sources to ensure opportunities for staff development in the identified areas for training.

16. LRCs develop regional pools of expertise which can provide immediate response to training needs of all LRC staff to meet front line training requirements.

17. LRCs seek opportunities for secondment of LRC staff to provide expertise locally and as regional experts (e.g. multi-media courseware development, information literacy course development).

Funding

Implicit in the concepts of alternative learning and independent study is an increased demand for more educational software, interactive video, multi-media software and hardware, and the staff and facilities to support these technologies and services. The technological shift from the traditional LRC to an expanded, broader vision requires the replacement and upgrading of network systems and expansion of facilities. Software costs are currently consuming LRC annual budgets at an increasing rate. In the technological metamorphosis, LRCs are at the larvae stage, a stage in which the costs to purchase, simultaneously, traditional materials and new technologies to feed rapid growth have become prohibitive.

It is recommended that:

18. Funding be provided locally to ensure all LRCs in Ontario meet the minimum technological requirements described in these recommendations.

19. Provincial and local funds be directed to LRCs to enable the Ontario Community College System to embrace the expanded role of the LRC as a hub of independent, self-directed learning, and as a centre which supports and enhances educational delivery in a technological environment.

V. CONCLUSION

LRCs can provide leadership to ensure that the Ontario College System does not develop colleges which are technologically elite while others struggle to provide basic services by establishing partnerships with provincial Computer Services representatives, the Educational Technology Coordinating Committee, Bibliocentre, local departments, and teachers. As Ontario Learning Resource Centres (LRCs) transform to meet the diverse and sophisticated resource and learning needs of students, the provincial Committee on Learning Resources is dedicated to ensuring that students across the province benefit equally from emerging technologies. A coordinated and planned approach to technology development is paramount to ensuring that Ontario students succeed beyond the 20th century.

To realize the vision of LRCs as centres for independent, self-directed learning which support teaching and learning in a technologically enhanced education environment, the Ontario Community College System must direct financial and technological resources to the growth and development of LRCs. Without such support for LRCs in Ontario, the erosion of services and the depletion of resources will continue at a time when they are most critical to the success of students who will move into a technologically advanced and information dependent work force.

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